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DOMINICA

ANNUAL REPORT

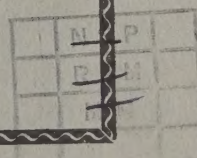
OF THE

DEPARTMENT OF AGRICULTURE

AND

FORESTRY

1956 and 1957





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ADMINISTRATION REPORT

OF THE

DEPARTMENT OF AGRICULTURE

AND

FORESTRY

1956 and 1957

INTRODUCTION

Several important staff changes took place during the period under review. A new post of Commissioner for Agricultural Development was made possible from Colonial Development and Welfare Funds and Mr. J. M. Cave, Superintendent of Agriculture, St. Vincent was seconded to fill this post from 1st October, 1956 for a period of three years. Mr. H. A. L. Francis was appointed Agricultural Superintendent, Mr. S. O. Pringle, Assistant Agricultural Superintendent and Mr. A. C. Winston, Crown Lands Officer from 1st September, 1956. Thus for the first time in many years the Department found itself with the full complement of Senior Staff.

2. Weather conditions were very different for the two years. In 1956 the rainfall was high and very evenly distributed. The absence of any marked dry season is reflected in the increase in banana output but had a somewhat adverse effect on limes and other citrus. In 1957 a severe drought started early and continued into May having a very adverse effect on banana production especially in the northern and western areas.

3. The price of limes which had reached an all-time low figure of \$2.04 per barrel in 1955 improved to \$2.64 per barrel in 1956 and then soared to \$6.50 per barrel for the whole of 1957.

4. The value of banana exports rose to 68% of the total domestic exports in 1956 and although output fell in 1957 still accounted for 67% of the total value of domestic exports.

AGRICULTURAL POLICY

5. The policy of the Department remains unchanged and may be summarized under the following main heads:—

- (i) The Conservation of the agricultural and forest resources;
- (ii) The maintenance, expansion and improvement of the Colony's main export crops;
- (iii) The organisation and improvement of peasant agriculture;
- (iv) The re-organisation and improvement of the livestock industry;
- (v) Creating efficiency in production, processing and distribution of agricultural products;
- (vi) Improvement in the form of land tenure.

6. The implementation of these main heads of policy progresses as circumstances, funds and the availability of trained staff permit.

PART I

AGRICULTURE IN THE COLONY

7. *Weather Conditions:* In 1956 the total rainfall at the Botanic Gardens was 86.03 inches and in 1957 88.58 inches both years being above the 25 year average of 69.68. The distribution was however most unusual for there was no marked dry season in 1956 while in 1957 only 9.93 inches was recorded for the five months February to June which was less than half the average for that period (20.11 inches). The other extreme was reached in October and November 1957 when 35.58 inches fell, more than twice the average.

8. Hurricane "Betsy" although expected to hit Dominica with full force eventually passed to the North on 11th August, 1956 causing serious damage to banana cultivations in the northern extremity of the island. On the 4—5th November, 1956 a hurricane of wide intensity developed in the inner Caribbean and caused severe high seas on the Leeward coast which did extensive damage to sea walls, roads and property but had little or no effect on agricultural production.

9. The mean absolute maximum and minimum temperatures for the period were 87°F and 70°F in 1956 and also in 1957.

10. The mean barometric pressure was 29.93 for 1956 and 29.94 for 1957. The lowest recorded was 29.70 on November 4th, 1956 due to the proximity of Hurricane "Greta".

11. The readings for the mean relative humidity were 71% in 1956 and 72% in 1957.

MAJOR INDUSTRIES

12. In 1956 the value of exports totalled some \$5,557,000 which was an increase of over \$1,100,000 above the 1955 figure. Due however to the effects of hurricane "Betsy" and the drought of early 1957, the value of exports for that year amounted to only \$4,872,000. Bananas, lime products, other citrus, copra and cocoa were the chief exports. A table of exports appears in Appendix II of this Report.

13. *Lime Industry:* The depressed prices of the preceding years combined with the old age of most of the lime plantations is reflected in the fact that the output of Lime products did not show any improvement in spite of a slightly increased price in 1956 and threefold increase in 1957 over the "all-time" low of 1955.

14. The total production of lime products for the period is shown in the following table based on exports:—

PRODUCTS	1956	1957
Settled Lime Juice	392,000 gals	326,000 gals
Lime Juice Top Pulp	75,000 "	120,000 "
Pomace of Dried Lime Skins	130 tons	163 tons
Distilled Lime Oil	31,000 gals	20,000 gals

15. *Other Citrus:* The exports of grapefruit and oranges to the United Kingdom market continued to be dependent on space being available on the banana boats. The export figures of 23,511 and 23,690 crates of grape-fruit in 1956 and 1957 and 6,618 and 10,992 crates of oranges for 1956 and 1957 respectively bear no relation to the potential production. Exports of Canned Grapefruit segments resumed in 1956 when 215,000 lb were shipped and 116,000 lb. in 1957.

16. *Bananas:* The expansion of the banana industry in 1954 and 1955 continued into 1956 when 1,803,000 bunches were exported. The importance of this crop is underlined by the fact that it amounted to 68% of the total value of domestic exports. In 1957 due to a small extent to the damage caused in the extreme north by hurricane "Betsy" in 1956 and to a very great degree to the severe and prolonged drought of February to May 1957, production dropped to 1,393,000 stems. The drought also affected other crops and the value of banana exports still accounted for 67% by value of all exports. The following shows the position over the last seven years:—

YEAR	STEMS EXPORTED	VALUE (\$)
1951	576,770	720,527
1952	856,856	1,073,426
1953	1,135,746	1,792,858
1954	1,352,010	2,308,320
1955	1,374,260	2,484,931
1956	1,803,000	3,793,000
1957	1,398,000	3,290,000

17. *Cocoa*: Production continued to decline with exports of cocoa beans falling from 190 tons in 1955 to 125 tons in 1956 and 89 tons in 1957. The extreme age of most cocoa cultivations combined with the rehabilitation and replanting of a large proportion of the old fields has accounted for this decline. New plantings of rooted clonal cuttings will not begin to have any effect on production until 1958 or 1959. Meanwhile over 28,000 cuttings were distributed in 1956 and 48,000 in 1957.

18. *Coconuts*: Due to economic prices for copra during the past years more interest is being shown in this crop. Some small areas of new coconuts have come into bearing during the period but the practice of growing bananas between coconuts especially in northern districts has had a beneficial effect on copra production as the coconuts do derive some benefit from the fertilisers applied to bananas. In 1956, 846 tons of copra were exported and in 1957 the export totalled 1,158 tons.

19. *Coffee*: Little interest in coffee was shown in 1956 but after a visit from Mr. Jervis, a coffee expert, in December 1957 interest has been stimulated. On Mr. Jervis' advice a small quantity of selected Robusta Coffee seed was obtained from Trinidad in early 1957. Germination results have been fair. Furthermore, generous supplies are expected in February 1958 and it is hoped to have plants available for about 100 acres by May 1959.

20. *Vanillas*: The production of this crop is always very erratic due to considerable variations in prices. In 1956 exports rose to 41,500 lb. while in 1957 they fell to the very low figure of 1,400 lb.

FOOD CROPS

21. Although some small increase in the interest in livestock production is noticeable its effects will take some time to be felt. There has been some increase in poultry keeping over the period. Food crops have, due to the steady increase in banana cultivation, been steadily reduced and prices of local food stuffs have risen. Imports of frozen meat from Ireland have increased and small shipments of cattle and pigs for slaughter have continued from St. Vincent.

AGRICULTURAL CREDIT

22. The Dominica Banana Association has greatly extended its credit facilities for fertiliser to its members during 1957. There is still great need for the provision of large quantities of agricultural credit in Dominica.

PESTS AND DISEASES

23. There were fortunately no serious outbreaks of pests or diseases during the period. The main crop pests continue to be:—

- (i) The Banana Borer — "*Cosmopolites sordidus*";
- (ii) The Fruit-piercing Moth of Citrus — "*Gonodontia incurva*";
- (iii) The Sugar Cane borer "*Diatraea saccharalis*";
- (iv) The Coffee Leaf-Miner "*Leucoptera coffeella*";
- (v) The Citrus Weevil "*Diaprepes Spp*".

Approval has been obtained for a continuation of the Colonial Development and Welfare Research Scheme under the Commonwealth Institute of Biological Control. More predators of some of the major pests will be introduced shortly.

24. In 1957, funds were available for a modest anti rodent campaign and some 1800 lb. of mixed "Warfarin" bait were distributed to farmers. Results were very satisfactory.

25. The Leaf Spot Control Organisation of the Dominica Banana Association continued its efforts to control leaf spot in the expanding banana cultivation. Early in 1956 the organisation adopted the "Low Volume" spraying methods. Unfortunately due to many difficulties including the non co-operation of many small producers the control of leaf spot has not been as effective as desired.

COLONIAL DEVELOPMENT AND WELFARE FIVE YEAR PLAN

26. By the end of 1956 all the major Agricultural Development Schemes under the new Colonial Development and Welfare Five year Plan had been approved. These are:—Cocoa Industry Improvement, Agricultural Stations, Central Livestock Farm and Control of Government Lands.

PART II

ADMINISTRATION

27. The progress of the programme of work was seriously handicapped due to shortages of senior staff until the latter part of 1956 and with the necessary re-organisation it was not possible to get the full programme started until the beginning of the "agricultural" or crop year in June 1957.

28. The Commissioner for Agricultural Development was able to reorganise the Department's work among the Senior Staff from early in 1957. The Agricultural Superintendent being responsible for research and investigational work on crops, pests and diseases, the Botanic Gardens and the Kings Hill Lime Experiment Station. The Assistant Agricultural Superintendent was made responsible for all extension work including the operation of the Agricultural Stations. The Veterinary Officer, Forest Supervisor, Crown Lands Officer continued their normal functions and responsibilities on an island wide basis. One Agricultural Assistant was made available to assist other officers with the Animal Husbandry and Grassland development work. This officer also supervised the operation of the Central Stock Farm Scheme. The Cocoa Assistant continued to be responsible for the operation of the Cocoa Development Scheme.

29. *Botanic Gardens*: The ornamental sections of the Botanical Gardens and five other public parks were maintained in fair condition. During 1957, however, there were heavy and frequent attacks made on the lawns by mole crickets and a type of army worm. Damage was considerably reduced by the use of aldrin but large sections of green already weakened by insect damage succumbed to drought. This necessitated replanting.

30. The following more outstanding plant introductions were made:—

- (i) Kentis forsteriana
- (ii) Euphorbia Pencocephela
- (iii) Hybrid Seed Corn
- (iv) Various cuttings of I.C.S and Grenada Cocoa clones.

In the economic section, the cultivation of citrus and bananas continued among routine operations. Citrus and coffee nurseries were maintained in the plant propagation programme.

EXTENSION SERVICES

31. The Commissioner for Agricultural Development was appointed and took up office in October, 1956. It is worthy of note that, with the exception of a full complement of Surveyors for the Crown Lands division, every post in the Department of Agriculture was filled by 1st September, 1956. This made it possible to reorganise the main Agricultural Districts by dividing the island into three sections — Northern, Central and Southern District. With an Agricultural Superintendent appointed, an Assistant Agricultural Superintendent, and three Agricultural Assistants, one Agricultural Assistant operating in each district, the organisation of the field staff, the operation of the Agricultural Stations and the Extension Services generally, were able to function with greater efficiency. During this period under review the need to grant leave to officers, who due to staffing difficulties have had to have their leave deferred in the past coupled with the fact that some of the personnel had been away on study courses made it impossible to place the full force of the staff in the field at any given time. It will be only when the staff shall have been fully trained that this situation can be rectified.

32. The following members of the Staff-in-Post have obtained training during the period under review:—

T. H. HENDERSON	...	...	District Agricultural Instructor Grade I, Imperial College of Tropical Agriculture (Still in Training).
R. P. LANDER	...	...	District Agricultural Instructor Grade I, Eastern Caribbean Farm Institute, successfully completed Diploma Course.
W. G. COIPEL	...	...	Foreman Botanic Gardens, Eastern Caribbean Farm Institute, successfully completed Diploma Course.
A. GUYE	...	...	District Agricultural Instructor, Grade II, still in training.
J. A. JOHN	...	...	District Agricultural Instructor Grade II, Eastern Caribbean Farm Institute, still in training.
A. E. SAMUEL	...	...	District Agricultural Instructor Grade II, Eastern Caribbean Farm Institute, still in training.

33. The Agricultural Apprenticeship Training scheme operated by the department continued. The improved staff situation has made it possible to carry out a more comprehensive syllabus in Theoretical and Practical Agriculture. The course is aimed at turning out youngsters who can be useful to Estate owners who need such employees or who can set out to do farming on their own as a business.

34. *Extension Services:* The function of the Agricultural Extension staff may be set out as follows:—

1. Operation of five Agricultural Stations.
2. Propaganda arrived at achieving improved standards and increased output.
3. Demonstration of improved cultural methods.
4. Demonstration of measures for maintaining basic soil fertility — Soil Conservation, Crop Rotation, Land Use, Keeping Livestock, Use of Artificial Fertilisers.
5. Demonstration of Disease and Pests control.
6. Propagation and Distribution of Economic Plants.
7. Inspection of holdings for the purpose of recommendations for Agricultural Loans.
8. Agricultural inspection of Crown Lands prior to sales.

35. *Agricultural Stations:* Five Agricultural Stations were maintained with the following functions:

- (i) Demonstration of improved cultural methods — Every opportunity is taken to demonstrate proper Land Use, Soil Conservation, Diversification in the Cropping Programme, Mixed Farming and Crop Rotations with grass as a crop and Livestock as an integral part of the Farming Programme.
- (ii) Investigational Work — Provides a source from which the extension staff can gather information and pass on to the farming community. Further details are set out elsewhere in this report.
- (iii) Maintenance of Stud Animals for Public Service — Effort is made to keep on each station at least One Bull, One Boar Pig, One Ram Sheep and One Ram Goat. Service is given to the public at highly subsidized rates. Unfortunately these services are not wholly appreciated and therefore not fully utilized. In addition distance from Agricultural Stations Stud Centres militates against their service to many farmers.

It appears therefore that the inclusion of small economic livestock units should help to bring home to the farming community the value of the improved animal. Such units should provide the nucleus from which other than Pig Revolving Herd Schemes should devolve.

The need for more Stud Service Centres is evident.

- (iv) Plant Propagation and Distribution — The demand for plants is largely dependent on trends of the markets in respect of the various crops. An unexpected increase in the price of Limes created a demand for ~~cocoa~~ plants far in excess of the quantity that were produced.

The demand for Cocoa Plants is still greater than the supply. In order to cope with the situation a propagating unit has been established at the Londonderry Agricultural Station and is expected to be in full production by the end of 1958. To meet the situation in the Eastern area a start has been made to construct a propagating unit at the La Plaine Agricultural Station, which should be in full production early in 1959. The supply of and the demand for other economic plants showed no variation over that of the previous two years.

Provision is made for the importation of Green Vegetable seeds. These are re-tailed at the Botanic Gardens and at all Agricultural Stations. There has been a steady and growing demand for these seeds. This is a clear indication that the populace are being educated to appreciate the value of green vegetables in their diet. The efforts of the Social Welfare Department in conducting a 3-F Campaign must have contributed greatly in this direction.

36. *Agricultural Credit:* The Agricultural Loans Board which was revived in 1952 continued to function. Loans were issued in cash and in the form of fertilisers. Loans are made only for the improvement and extension of Banana cultivations. Repayment of these loans is made through the Dominica Banana Association which organisation is authorised to deduct a proportion of the amounts realised from the sale of bananas.

37. Due to lack of proper marketing facilities for other crops and for arrangements for recovery, loans are restricted to banana cultivations.

38. *Agricultural Development of Crown Lands:* In order to bring about more satisfactory agricultural development on Crown Lands, the policy is to survey large areas of suitable agricultural land and subdivide them into lots for alienation to farmers. This makes for better organisation of the peasantry, enables the extension services to reach these people so settled with greater ease and effectiveness.

39. Attached to the Scheme for the Control of Crown Lands are fourteen (14) Soil Conservation Instructors. Their primary functions are to:

- (i) Arrest shifting cultivation and therefore prevent waste and spoliation.
- (ii) Encourage squatters to remove from isolated helter skelter patches of land and to settle in organised settlement areas.
- (iii) Demonstrate to, advise and encourage settlers to conserve and develop the areas they are farming.

40. *Visits to Holdings:* The Extension Service Staff were constantly engaged in maintaining contact with the Farming Community. During 1957, 1,675 visits were paid to 658 individual Estates, Small Holdings and School Gardens etc. The purpose of these visits may be classified under the following heads:—

1. Soil Conservation — Demonstrations and laying out of Conservation Works.
2. Crop Husbandry — Demonstrations in several aspects of, particularly with Bananas, Cocoa, Limes and other Citrus, Coconuts, Coffee and Vegetables.
3. Livestock — Central of internal and external parasites, Pig Revolving Herd Scheme, rendering first aid in the absence of the Veterinary Officer.
4. Produce Inspection — Particularly in the export of Vanillas and Citrus fruit.
5. Crop Valuations — Mainly in co-operation with the Public Works Department road construction programme.
6. Loan Applications — For banana cultivations extension and rehabilitation.
7. Pests and Disease Control — Particularly with Banana Leaf Spot, Insect pests of Bananas and Citrus and rat control measures.
8. Plant Protection — Precautions against the introduction of diseased material as also the exportation of such.
9. Agricultural Small Tenancies — Mainly as arbitrators for purposes of valuations.

41. *Extension General:* Emphasis was placed on the advantages of the group approach to the Farming Community. Field demonstrations on individual holdings at which neighbouring farmers were asked to attend, were arranged at frequent intervals.

42. Meetings were held in out districts and available opportunity to address farmers and 3-F Campaign Groups was fully utilised.

43. Four films of Agricultural Interest were shown in Roseau. They dealt with Soil Erosion, Banana Cultivation and Citrus Production. There is need for a type of projector which will enable the showing of such films in rural areas as well.

44. There were no severe outbreaks of disease or pests and the tempo of Agricultural production was similar to previous years.

45. *Observations:* A great deal of handicaps need to be overcome in order to satisfactorily increase production throughout the island. Some of the foremost are:—

- (i) Lack of true Agricultural Credit such as could make available Long Term Capital loans and short term crop lieu loans.
- (ii) Lack of proper marketing facilities for crops other than Bananas and Coconuts.
- (iii) Lack of adequate internal communications.
- (iv) Severe shortage of Agricultural Labour force.
- (v) High cost of labour due to lowered standard of work resulting in a decreased daily output.
- (vi) Lack of adequate Agricultural Mechanization.

REPORT ON RESEARCH 1957

46. Work was commenced or continued with the under-mentioned crops as follows:—

FOOD CROPS	...	...	Maize, Sweet Potato, Cassava
FODDER CROPS	...	...	Pangola grass
ORCHARD CROPS	...	...	Bananas, Limes.

47. All of the trials had as their chief objective a comparison of the performances of the various crops as influenced by the three chief fertilisers, Nitrogen, Phosphorus and Potash and in observing variation in these performances on different soil-types.

FOOD CROPS

48. *Maize*: Previous trials on a "yellow earth" soil type resulted in significant increases in vigour of growth and in yield of grain due to treatments of Superphosphate applied at the rate of 2 cwt per acre. In an attempt to confirm this finding, a 3 x 3 Latin square N,P,K fertiliser trial was laid down utilising seed of an American hybrid known as "Dixie". Growth and yield was unsatisfactory, the best plots producing only at the rate of 115 lbs. cob-corn per acre. The trial was subsequently repeated at a different season but this likewise proved a failure. The particular strain is not considered suitable under local conditions.

49. *Sweet Potatoes*: Earlier work with this crop was confined to a selection of the better yielding varieties from several local types. The outstanding ones have now been included in manurial trials to compare the responses to Nitrogen, Phosphate and Potash in simple factorial designs. Further selection and multiplication work is continuing in collaboration with a regional plant breeding programme which is being conducted by the Regional Research Centre, I.C.T.A. Trinidad.

50. *Cassava*: Earlier trials with cassava indicate that the application of phosphate resulted in a significant increase in yield of 3.3 tons per acre over the yield due to nitrogen and an increase of 4.4 tons per acre over the yield due to potash. Similar trials are now underway but yield figures are not yet available to report.

FODDER CROPS

51. *Pangola Grass*: This strain of grass, native to Africa, was first introduced to the island in 1955 in a scheme for pasture improvement. Outstanding growth results have been achieved in several localities varying from 80 — 150 inches rainfall per annum. A manurial observation plot was established at the Central Livestock Farm an area acclaimed to be deficient in Phosphate, to compare responses to dressings of Nitrogen, Phosphate and Potash. The earliest reaping of fodder has shown that the increase in yield due to nitrogen was 17 times more than the increase due to Phosphate, and 5 times more than the increase due to Potash. Trials are to continue to discover optimum rates and combinations of fertiliser application.

ORCHARD CROPS

52. *Bananas*: Several kinds of ready-mixed fertilisers varying widely in composition are in wide and indiscriminate use with bananas throughout the island. The practice undoubtedly involves wastage or the uneconomic use of certain fertiliser ingredients.

53. Certain factorial fertiliser trails have accordingly been laid down on different soil types to assess the response of bananas to dressings of N.P. and K. in all possible combinations. The trials are designed to determine essentially yield of fruit but will also make provision for the recording of speed of maturity, consequently gross return to the grower per annum. Results of the first year of growth are not yet available but it has been observed that applications of nitrogen have given more rapid growth and an earlier production of fruit.

54. As with other crops, it is proposed to enlarge these trials to assess the optimum levels of fertiliser applications.

55. *Limes*: The paucity of systematically planted fields makes it difficult to carry out as many properly conducted trials as would be desirable with a crop of this nature in view of its requirements in time and of space occupied on the land. Furthermore, most of the existing orchards are not far removed from the end of their economic life and are in need of rehabilitation, or, better yet, replanting. Commencing in 1956, however, opportunity was taken to lay out a fertiliser trial in a recently replanted field at Bath Estate. The trial occupies an area of 1.4 acres with individual plots 1/17 acre containing 9 plants. The trial has as its object the comparison of the effects of N.P. and K. on growth, general performance and ultimately on yield.

56. To date, the plants have barely commenced to fruit. Fertiliser applications have continued over a two year period at four-monthly intervals between applications. Treatments are to continue over several years.

57. Initial growth was retarded by unusually dry weather but growth measurements taken during the second year showed that Nitrogen gave the fastest growth followed closely by Potash then by Phosphate in the following ratio 1.7, 1.5, 1.03.

LIVESTOCK

58. *Central Livestock Farm:* Approval was obtained to continue the operation of this Scheme from 1st January, 1956 from local funds pending reimbursement from Colonial Development and Welfare funds. It was therefore necessary to operate the Farm at a minimum level and as final approval for Colonial Development and Welfare funds did not come until October 1956 this situation is reflected in the low revenue takings of that year. Since then however the scheme has developed rapidly.

59. The following records represent the activities of the Farm during the period:—

		BIRTHS	STUD SERVICES	SALES
CATTLE	1956	13	95	8
"	1957	16	93	5
Pigs	1956	45	6	34
"	1957	60	5	52
Sheep/goats	1956	None	22	6
"	1957	10	7	27
Poultry	1956	None	—	91
"	1957	35 (incubated)	—	82
Milk	1956	55,480 lb. (production)	—	38,950 lb.
"	1957	57,360 lb. (production)	—	36,630 lb.
Eggs	1956	799 (collected)	—	799
"	1957	12,758 "	—	12,246

60. Revenue from the Farm in 1956 was £5,653.43 and in 1957, £6,820.76 broken down as under:—

	1956	1957
SALE OF ANIMALS	\$1,699.82	\$1,761.08
EGGS	78.48	1,404.24
STUD SERVICE	84.48	73.20
MILK	3,739.96	3,517.17
MISCELLANEOUS	90.69	65.07
	\$5,653.43	\$6,820.76

61. The general health of the animals was good and was maintained at a satisfactory level. There were no outbreaks of contagious diseases.

62. At the end of 1956 and 1957, the inventory of animals were:—

	1956	1957
BULLS	3	6
COWS	14	16
CALVES	12	23
YEARLING HEIFERS	6	6
PIGS (OVERALL)	40	32
SHEEP (")	25	5
GOATS (")	1 (stud)	4
POULTRY	72	279

63. The following details of Deaths, Importations and transfers of animals at the Stock Farm are submitted:—

Deaths: The following deaths were recorded during this period:

1956	...	...	...	One heifer calf	—	heart infection
1957	...	...	...	One bull calf	—	trampled by dam.

Importations : The undermentioned animals were imported for the farm during 1956 and 1957:

1956							1957						
Pigs	...	Gilts	...	...	5	ex	CATTLE	...	Bulls	...	6	ex	
		Weaned boars	...	...	1	St. Lucia			Heifer	...	2	Jamaica	
							SHEEP	...	Rams	...	3	ex	
									Ewes	...	4	Barbados	
							GOATS	...	Bucks	...	3		
									Does	...	1		
							POULTRY	...	Chicks	...	277	ex U.S.A.	

Transfers: The following animals were transferred to out-districts and Agricultural Stations:—

1956							1957						
BULLS	...	...	...	...	...	3	BULLS	...	...	...	...	...	4
BOARS	...	...	...	...	...	1	BOARS	...	...	...	...	...	2
BUCKS	...	...	...	...	...	2	GILTS	...	...	...	...	...	1
							RAMS (Sheep)	...	...	...	...	...	2
							BUCKS (goat)	...	...	...	...	...	2

64. *Pasture Improvement:* In June 1956 a small quantity of planting material of pangola grass was obtained from St. Kitts. This material planted 1/6 acre nursery plot. Early in 1957 and in spite of the very adverse weather conditions pastures were gradually established. With the crawler tractor and plough obtained in January 1957 it was possible to establish thirty-five acres of pangola grass by the end of the year.

Pangola grass planting material was also available for the Agricultural Stations and for distribution to interested farmers.

65. *Capital Development:* Under the provisions of the approved Colonial Development and Welfare Scheme the following capital developments had taken place by the end of 1957:—

(i) FARM BUILDINGS COMPLETED

Garage and Storeroom
Deep litter poultry house
Calf Pens
New sheep and Goat pens
Head Stockman's house
Incubator cum Brooder house

(ii) EQUIPMENT OBTAINED

Crawler Tractor and 4 disc plough
Milk Delivery Van
Two Electric Brooders.

66. In 1956, Mr. J. Talma, Agricultural Assistant spent six months in Jamaica studying Pasture Management and artificial insemination. This was made possible by a Colonial Development and Welfare grant.

67. In November and December 1956 Dr. Lecky, Senior Livestock Research Officer, Jamaica paid a visit to Dominica at Government's request and reported on Livestock in Dominica in general and the Central Livestock Farm in particular.

68. Dr. French appointed by the Regional Research Council to make recommendations on Livestock Research visited Dominica in November 1957.

69. *Livestock:* It is regrettable to record that with the exception of poultry the lack of interest in livestock production continues. The small peasant farmer continues to own most of the livestock and the large land owner has not yet started to make any contribution to the industry. One foreign investor has recently bought an estate in the south-east of the island and appears to have plans for considerable livestock development.

70. In spite of the fact that the number of animals has not increased very much the services of a Veterinary Officer are greatly appreciated and due to the difficulties of transport and the scattered nature of the holdings this officer is very fully employed.

71. *Lime Station:* In view of declining yields from trees now approaching the end of their economic life, a programme of gradual replanting of lime fields has been commenced. This must of necessity be spread over a period of years.

72. The following was derived from the sale of produce at this station.

Produce sold 1956	...	...	...	...	\$ 893.07
Produce sold 1957	...	...	...	...	\$1,647.07

Produce was comprised of the following:—

	1956	1957
LIMES	178 barrels	284 barrels
GRAPEFRUIT	8,500 fruit	3,236 fruit
COCONUTS	1,770 „	875 „
AVOCADO PEARS	—	—
ORANGES	1,400 „	200 „
MANGOES	1,900 „	3,300 „

73. *Plant Propagation and Distribution:* The following plants were distributed from Propagation Stations:—

	1956	1957
WEST INDIAN LIMES	2,033	2,024
ORANGES	1,670	1,655
GRAPEFRUIT	2,034	1,849
AVOCADO PEARS	28	36
VEGETABLE SEEDS: Packets	5,078	2,876
SWEET POTATOES (lbs.)	4,500	4,500
MANGOES	11	2
BLACK PEPPER	35	23
FODDER GRASS	—	1,000
COFFEE	1,120	1,278
SUGAR CANE	—	447

COCOA

74. *Cocoa Industry Improvement:* Further Colonial Development and Welfare funds were approved for the continuation and expansion of the previous Cocoa Development Scheme for the five year period ending in March 1960. It was possible to undertake essential capital works in 1957.

75. The main propagation station at Hillsborough had its rooting bin capacity increased from 54,000 to 80,000 cuttings per annum and at 50% final rooting efficiency should produce 40,000 plants per annum for distribution. The hardening and storage areas were greatly increased and improved.

76. During the period the nurseries were expanded and some rehabilitated by some 2,200 new plants. Nursery material has been the main limiting factor in the output of this Station. This new material will be available before the end of 1958.

77. The Botanic Gardens cocoa propagators were increased by the addition of two more bins and considerable improvements were made to the hardening and storage facilities. The nursery at this Station was enlarged by the planting of 1½ acres of new nursery.

78. The Cocoa Propagation Centre at Londonderry Agricultural Station has expanded and almost entirely rebuilt. Propagation could only be restarted there in the latter part of 1957. Here again the existing nursery was too small and too old to provide much suitable rooting material and 2 acres of new nurseries have been established.

79. Under the new Cocoa Scheme provision was made for the establishment of a propagating unit at La Plaine. By the end of the period under review a water supply has been installed and propagating bins constructed. A start has also been made to establish nurseries and it is hoped that before the end of 1958 some material will be available there for propagation. The demand for rooted cocoa cuttings remains high but adverse weather conditions in 1957 delayed preparation and also made the successful distribution season very short.

80. At all propagating centres the core method of rooting has been adopted; this saves considerably on the costs of operation and the final take is no less efficient than by previous methods.

81. The number of rooted cocoa cuttings distributed in 1956 was 24,525 and in 1957 28,536. There were 53,600 plants in storage at the end of 1957.

82. It is estimated that about one third of the plants distributed went to small farmers.

83. The overall efficiency of the propagators was 48% in 1956 and 65% in 1957.

84. There are five estate propagators and these are estimated to produce about 20,000 plants per annum.

85. The incidence of phytophthora in potted cuttings in storage has shown considerable reduction recently. This is thought to be a direct result of using plastic netting and galvanised strips for shade in place of wood and bamboo slats. No serious pests or diseases occurred.

86. Clonal material of ICS 89 and 100, IMC 67 and GS 18 and 36 were imported from St. Vincent during the period and established in the nurseries at Hillborough Station.

87. In September 1956 Mr. D. A. Perryman, Cocoa Officer, Grenada visited Dominica and reported on the Cocoa Propagation Scheme. With approval of further Colonial Development and Welfare funds shortly after it was possible to incorporate many of Mr. Perryman's suggested improvements in the present operation.

88. *Staff Notes:* The Agricultural Superintendent and the Veterinary Officer attended the meeting of the Advisory Council on Agriculture etc. in April 1956 in St. Vincent.

89. The Agricultural Superintendent visited Jamaica in January 1957 as a member of a delegation of the Dominica Banana Association.

90. The Commissioner for Agricultural Development visited St. Lucia in March 1957 as a member of a Delegation of the Dominica Banana Association and visited Jamaica in August 1957 as one of the Windward Islands representatives on the Advisory Council on Agriculture etc.

91. The Cocoa Assistant visited Jamaica in 1957 for a short course on cocoa budding techniques.

92. The Veterinary Officer visited Jamaica in June 1957 to select and purchase bulls for the Central Livestock Farm.

93. *Visitors:*

MARTIN BRUNT	...	...	Land Use Officer, Colonial Surveys Office, October 1956.
T. S. JERVIS	...	...	Coffee Export, November 26th to December 17th, 1956.
DR. T. P. LECKY	...	...	Senior Livestock Research Officer, Jamaica, 28th November to 13th December, 1956.
C. R. ROBSON	...	...	Seismologist, Trinidad, March 1957.
JOHN BROOKE	...	...	Brooke Bond Tea, April 1957.
G. E. HODNET & W. R. E. NANTON	...	...	Agricultural Survey team, 16th May, 1957.
BAVERSTOCK & FOLLEY	...	...	Colonial Office, Citrus Mission, July 1st — 11th, 1957.

H. J. GOODING	...	...	Food Crop Research Officer, September 23rd to October 1st 1957.
DR. P. A. COURBOIS	...	...	Caribbean Commission, Agricultural Credit Expert 7th October to 14th October, 1957.
DR. D. M. H. FRENCH	...	...	Livestock Research, November 7th to 11th, 1957.
J. H. L. WILLIAMS	...	...	Brooke Bond, December 12th, 1957.
MR. & MRS. RONALD TREE			
MR. & MRS. ADLAI STEVENSON			

94. *Administration Report — Crown Lands:* The objectives of the scheme for the control of Crown Lands continue to be the same, viz:—

- (i) to anchor squatters on reasonably good land
- (ii) to stop further encroachment on Crown Lands, especially in the Forest Reserves
- (iii) to stop the evils of shifting cultivation,
- (iv) to enforce adequate measures on control and to institute soil conservation works.

For continuation of the Scheme a further grant of £31,671 was approved by the Secretary of State in December 1956 and in April 1957 further approval was given for the variation of the scheme to permit the inclusion of a new capital item for the purchase of 512 acres of Rosalie Estate to settle the evicted tenants of that area.

95. The scheme has now passed its first stage where actual control of the squatters has been very successful. Emphasis is now being placed on the more orderly settlement of squatters in block units and a number of areas have already been surveyed and allocated. This organised settlement of squatters hitherto scattered over wide areas, will bring about more effective agricultural supervision and allow for reduced costs in the provision of roads and other amenities.

96. The Commissioner for Agricultural Development maintained administrative control of crown lands, while the Crown Surveyor exercised technical control over surveyors and survey matters. Mr. A. C. Winston succeeded Mr. S. O. Pringle as Crown Lands Officer in September 1956. Although the scheme contains provision for the employment of four (4) surveyors, this full complement was never attained. Only one surveyor was available during the period under review. Fourteen (14) Soil Conservation Instructors were engaged in the inspection of land prior to disposal for sale and the location of squatters. They also form part of the Extension Service, advising and assisting the farmers in proper cultural practices aimed at conserving the soil and its fertility. These Soil Conservation Instructors work in liaison with surveyors, Forest Officers and the other members of the Extension Service of the Department of Agriculture.

97. During the year 1957 surveys on the Stone Hill and Crapaud Hall Settlements were completed and the lots were allocated. Work was commenced on two other settlement areas in the North viz:— Gregg-Crown and Hampstead. Six (6) lots in the Castle Bruce area were surveyed and nine (9) lots on the Richmond Settlement were checked. Other work accomplished by the Crown Lands Department also included the resurvey of the La Plaine Agricultural Station and the Grand Fond Government School grounds, as well as the survey of Goodwill Government Lands and a portion of the L'eau Gomier Forest Reserve with the object of having it released for Agricultural purposes. The survey of the Northern and North-eastern boundaries of the portion of land purchased from Rosalie Estate for settlement was also carried out.

98. It should be pointed out that of the \$31,671 approved for the continuation of the Crown Lands scheme \$3,000 was allocated for the demarcation of Forest Reserves.

99. The following figures indicate the progress made in respect of the sale of Crown Lands to the end of the year 1957.

Applications submitted	...	...	...	...	...	2,641
Sales approved	...	...	...	...	...	1,281
Surveys completed	...	...	...	...	...	736
Sales not approved	...	...	...	...	...	249
Sales by Auction	...	...	...	...	...	200
Crown Grants Issued	...	...	...	...	...	25

100. *Administration Report — Forest Service 1957:* No Forest Policy has yet been prepared for Dominica. Dr. Beard's proposals for a Forest Policy as outlined in Bulletin No. 11 of the Development and Welfare Organisation has been adopted in principle and is as follows:—

- (a) The execution, together with other Departments, of a Land Use Survey of Dominica to provide the necessary data for land planning.
- (b) On completion of (a) to draw up a complete land allocation and conservation policy of Dominica.
- (c) To carry out Forest Reservation and to manage these Reserves in such a manner as to fulfil their protective function in the interests of soil and water conservation, and at the same time to provide the maximum out turn of forest produce on the basis of a sustained yield.
- (d) To carry out research in silviculture, and utilization of forest products.
- (e) To educate and train subordinate staff and the public to the benefit of a properly implemented Forest Policy and to the efficient use of forest product.
- (f) To encourage private forestry and to assist in establishing conservative management.
- (g) To protect nature.

THE FOREST ESTATE

101. *Crown Lands:* Certain areas on Crown Lands at Crapaud Hill, Craig and Crown, Hampstead and in other parts of the island were released for sale during this period. The survey of the Morne Diablotin Forest Reserve was started in the latter part of this year. The boundaries of the Transinsular road Forest Reserve and the Roseau River catchment Reserve were both maintained during the period. Sales of timber and other forest produce continued as in the past.

102. *Private Lands:* Owners of privately owned forests have shown some interest in forestry during 1957. Some seeds and seedlings of various species have been distributed to these persons and help in establishing nurseries etc. has been given by the Forest Service Staff.

103. *Survey, Demarcation and Enumeration:* Survey of the Morne Diablotin Forest Reserve started on the 19th November, 1957. 322 chains were surveyed by the end of the year. Clearing of the Demarcation lines of the Morne Trois Piton and Morne Governor reserves continued throughout the year and survey of these reserves is expected to commence soon.

104. *Communication and Buildings:* Work on the Rosalie Road progresses. The Transinsular road has not been completed but is open to wheel traffic. No work was done on Forest Buildings during this period.

105. *Protection:* Patrols and inspection for control and protection of Water Catchment areas, Forest produce etc., were carried during this period. Few offences were committed and these were dealt with by the Magistrates in the various Districts.

106. *Silviculture:*

- (a) **SEED COLLECTION:** Seed of various species were collected by officers in all ranges. Small quantities were distributed to private landowners interested in Forestry and some sown in Forest Nurseries in different parts of the Island.
- (b) **NURSERIES:** In nurseries at the Cabrits, La Plaine and Delices, seeds of Blue Mahaut Teak and other local species were sown and good results obtained.
- (c) **PLANTATIONS:** The experimental plot of Blue Mahaut along the Transinsular road was extended. Results continue to be satisfactory. A small plot of white cedar was started in Crown Lands above the O'uanary Estate.

107. *Utilization:* A number of pit sawyers have left this country for other fields with the results that little sawing is being done on Crown Lands at the moment.

108. *Production and Trade :*

CROWN LANDS	LOGS CU. FT.	SAWN CU. FT.	HEWN CU. FT.	ROUNDWOOD CU. FT.
	4,465	5,052	533	24

109. *Revenue:* Forest Service receipts \$1,474.00

110 *Education:* Talks on Forestry were given by the Forest Supervisor in different parts of the Island.

111. *Staff and Labour:* The Staff in 1957 was as follows:—

J. M. CAVE ...	...	...	Chief Forest Officer (Commissioner for Agricultural Development)
C. C. HILL ...	...	...	Forest Supervisor
R. E. JAMES ...	...	...	Forest Ranger, Portsmouth Range
Q. C. L. DALRYMPLE ...	...	...	" " Roseau "
P. J. MELLOW ...	...	...	" " Central "
H. C. JOSEPH ...	...	...	" " La Plaine "
S. MATTHEW ...	...	...	Forest Guard
E. BAPTISTE ...	...	...	" "
B. WILLIAMS ...	...	...	" "
H. A. EMANUEL ...	...	...	" "
F. TONGE ...	...	...	" "
C. R. JULIEN ...	...	...	" "
Q. GREENAWAY ...	...	...	" "
C. VIGILANT ...	...	...	" "
C. ROYER ...	...	...	Clerk.

112. *Miscellaneous:* The Conservator of Forest visited Dominica several times in 1957.

APPENDIX I
PRINCIPAL EXPORTS FOR THE YEARS 1956 AND 1957

COMMODITY & DESTINATION	QUANTITY			F.O.B. VALUE IN THOUSAND OF DOLLARS	
	Unit	1956	1957	1956	1957
Fresh Fruit					
BANANAS:—					
United Kingdom	1,000 stem	1,797	1,377	3,781	3,269
British West Indies	" "	6	20	11	19
Other Countries	" "	1	2	1	2
Total	1,000 stem	1,804	1,399	3,793	3,290
GRAPEFRUIT					
United Kingdom	C/crate	18,466	20,840	85	103
British West Indies	"	4,377	2,848	16	13
Other Countries	"	668	1	4	—
Total	C/crate	23,511	23,689	105	116
ORANGES:—					
United Kingdom	C/crate	2,340	7,712	12	39
British West Indies	"	3,198	3,029	17	15
Other Countries	"	1,000	252	8	1
Total	C/crate	6,538	10,993	37	55
Preserved Fruits					
CANNED GRAPEFRUIT SEGMENTS:—					
United Kingdom	1,000 lbs.	210	111	45	27
New Zealand	"	—	3	—	1
British Guiana	"	2	2	—	—
British West Indies	"	3	—	1	—
Canada	"	1	—	—	—
Total	1,000 lbs.	216	116	46	28
Preserved Fruit					
POMACE OF DRIED LIME SKIN					
United Kingdom	1,000 lbs.	176	261	45	67
Total	1,000 lbs.	176	261	45	67
OTHER PRESERVED LIME SKIN:—					
United Kingdom	1,000 lbs.	109	99	10	8
Total	1,000 lbs.	109	99	10	8
Lime Juice; Settled					
United Kingdom	1,000 gals.	332	268	265	289
Australia & New Zealand	"	24	22	22	24
British West Indies	"	4	9	4	11
Canada	"	15	9	13	10
U.S. America	"	12	7	11	9
Other Countries (1)	"	4	10	15	17
Total	1,000 gals.	391	325	330	360
Lime Juice; Top Pulp					
United Kingdom	1,000 gals.	64	122	64	177
Canada	"	7	2	8	4
U.S. America	"	1	—	1	1
New Zealand	"	—	—	—	—
Total	1,000 gals.	72	124	73	182
Cocoa					
COCOA BEANS:—					
Canada	1,000 lbs.	64	117	25	42
U.S. America	"	136	46	51	19
United Kingdom	"	29	26	13	11
West Germany	"	40	—	21	—
Holland	"	6	—	2	—
Total	1,000 lbs.	275	189	112	72

(1) Chiefly B British African Territories

APPENDIX I—Continued.

PRINCIPAL EXPORTS FOR THE YEARS 1956 AND 1957

COMMODITY & DESTINATION	QUANTITY			F.O.B. VALUE IN THOUSAND OF DOLLARS	
	Unit	1956	1957	1956	1957
Spices					
VANILLA BEANS:—					
U.S. America	100 lbs.	394	8	315	8
Canada	"	14	—	19	—
British West Indies	"	8	6	8	9
Total	100 lbs.	416	14	342	17
Copra					
COPRA:—					
Barbados	Long Ton	846	1,156	254	347
Total	Long Ton	846	1,156	254	347
Essential Oils					
BAY OIL:—					
U.S. America	1,000 lbs.	36	10	93	28
United Kingdom	"	9	8	22	21
Other Countries	"	3	4	8	11
Total	1,000 lbs.	48	22	123	60
Distilled Lime Oil					
United Kingdom	1,000 lbs.	22	13	180	154
Australia	"	9	6	75	66
Other Countries	"	—	1	3	7
Total	1,000 lbs.	31	20	268	227
Floor Mats					
MATS OF STRAW:—					
British West Indies	1,000 sq. ft.	23	50	24	25
British Guiana	"	7	12	3	5
U.S. America	"	11	11	6	7
Bermuda	"	10	5	4	2
U.S. Dependencies	"	1	7	1	4
Other Countries	"	1	—	1	1
Total	1,000 sq. ft.	53	85	39	44

APPENDIX II METEOROLOGICAL RECORD

1956 MONTH	REL. HUM. MEAN		MAX. TEMP. MEAN	MIN. MEAN	BAROMETRIC PRESSURE MEAN		1957 MONTH	REL. HUM. MEAN		MAX. TEMP. MEAN	MIN. MEAN	BAROMETRIC PRESSURE MEAN	
	a.m.	p.m.			a.m.	p.m.		a.m.	p.m.			a.m.	p.m.
January ...	...	...	...	...	...	...	January	...	...	...	...	...	...
February ...	...	...	...	...	...	...	February	...	...	...	...	...	...
March ...	...	...	...	...	...	...	March ...	...	...	...	...	...	...
April ...	...	...	...	...	...	...	April ...	...	...	...	...	...	...
May ...	...	...	...	...	...	...	May ...	...	...	...	...	...	...
June ...	...	...	...	...	...	...	June ...	...	...	...	...	...	...
July ...	...	...	...	...	...	...	July ...	...	...	...	...	...	...
August ...	...	...	...	...	...	...	August ...	...	...	...	...	...	...
September ...	...	...	...	...	...	...	September	...	...	...	...	...	...
October ...	...	...	...	...	...	...	October	...	...	...	...	...	...
November ...	...	...	...	...	...	...	November	...	...	...	...	...	...
December ...	...	...	...	...	...	...	December	...	...	...	...	...	...
YEARLY MEAN ...	...	...	...	...	...	...	YEARLY MEAN	...	...	...	...	...	...

The lowest reading of the Barometer for 1956 was on November 4th ... 29.70.
The lowest reading of the Barometer for 1957 was on January 13th ... 29.71.

Month Date	
Highest Barometer Reading	30.16
Lowest Barometer Reading	29.70
Highest Max. Temperature	93°
Lowest Min. Temperature	61°
Greatest Rainfall in 24 hrs.	3.82
Dec. 12th 1957	...
Nov. 4th 1956	...
Sept. 13th 1957	...
Dec. 20th 1956	...
Dec. 12th 1957	...

Appendix III
RAINFALL AT THE BOTANIC GARDENS, DOMINICA, 1933 — 1957

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	25 years 1933—1957 Mean.
	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	
JANUARY ...	7.20	4.81	2.37	3.46	3.24	6.73	4.13	1.67	5.00	4.16	5.70	4.24	1.76	6.12	9.23	5.95	2.06	9.87	5.96	1.85	3.94	5.36	1.84	5.49	5.99	5.30
FEBRUARY	2.31	1.70	1.59	2.50	3.40	1.43	2.84	1.45	.47	2.25	1.01	6.89	9.14	5.86	2.07	4.54	6.44	3.59	2.92	1.59	4.89	2.57	1.13	5.64	2.75	3.22
MARCH ...	2.37	3.36	6.90	.82	1.34	2.69	4.38	2.16	2.05	.97	5.46	1.89	1.29	1.47	2.75	1.48	2.73	3.75	1.88	1.38	4.11	3.04	1.86	4.91	0.40	2.61
APRIL ...	2.03	2.91	1.45	3.94	2.61	.72	5.62	1.00	2.82	7.14	3.34	1.65	1.11	2.88	2.61	2.11	1.46	1.89	3.84	4.25	4.55	4.49	.87	3.66	2.36	2.62
MAY ...	2.26	3.82	4.27	2.34	1.48	1.41	.86	1.34	5.53	4.86	3.20	8.55	1.95	3.18	5.53	4.60	2.58	10.37	13.20	4.31	7.29	2.64	3.19	3.60	1.05	4.05
JUNE ...	7.05	2.59	5.04	6.47	6.57	19.56	4.90	4.65	5.39	9.18	6.25	7.20	6.21	7.04	4.67	6.12	13.02	12.64	10.54	9.66	6.83	5.74	6.80	10.95	3.37	7.61
JULY ...	12.30	9.54	13.47	18.48	5.60	13.44	7.18	7.97	13.94	13.86	6.10	12.98	11.17	6.15	11.73	12.84	11.41	10.00	8.32	13.19	16.32	11.97	7.56	8.01	16.15	11.19
AUGUST ...	7.94	7.61	8.87	10.36	6.20	27.92	6.96	6.96	7.52	11.13	10.93	9.19	9.05	9.44	5.73	8.41	9.69	8.18	10.36	9.83	8.89	11.55	7.94	11.97	8.38	9.65
SEPTEMBER	11.51	4.08	12.93	11.14	4.40	10.77	6.52	2.55	10.62	11.76	7.99	5.74	15.43	8.34	8.09	8.67	12.75	4.90	9.69	6.25	14.35	18.08	5.95	4.44	5.44	9.30
OCTOBER ...	9.26	3.89	5.43	7.65	3.74	4.48	15.42	9.00	6.98	5.91	9.69	6.39	10.90	4.40	4.02	8.40	9.32	14.14	4.80	8.04	4.95	8.15	5.43	10.11	13.80	7.75
NOVEMBER	11.04	5.58	3.39	12.14	20.85	12.34	5.91	10.97	12.45	24.82	5.38	9.59	2.98	13.91	7.10	9.37	2.68	8.00	7.82	9.10	6.20	8.34	9.52	10.42	21.78	10.11
DECEMBER	7.03	9.46	6.24	10.84	5.43	6.14	3.57	9.96	4.81	8.47	9.60	6.81	4.33	4.34	8.67	6.97	5.81	3.62	6.74	1.91	7.43	2.38	2.16	6.83	7.62	6.27
	82.22	59.35	71.95	89.26	74.86	104.63	68.29	59.68	77.58	104.51	71.65	81.12	75.32	73.07	72.20	79.46	79.95	93.95	86.07	81.36	89.75	36.11	54.25	86.03	88.58	79.68

Average Annual Rainfall 1933—57 — 79.68 inches.

Appendix IV
RAINFALL RETURNS — DOMINICA

STATIONS	TOTAL NO. OF INCHES	
	1956	1957
BOTANIC GARDENS	86.04	89.08
EXPERIMENT STATION	116.63	88.18
BATH ESTATE	95.02	84.18
COLIHAUT STATION	63.90	58.31
STOCK FARM	96.15	93.18
PORTSMOUTH STATION	123.44	108.27
SOUFRIERE ESTATE	106.96	108.13
COCOA STATION	113.06	105.63
GRAND BAY STATION	121.08	120.85
DELICES	129.56	124.30
LA PLAINE STATION	129.38	120.93
LONDONDERRY STATION	109.30	89.67

